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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,499	10/20/2003	David W. Baarman	18716.81427-002	4254

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EXAMINER

HAN, YOUNGHUIE JESSICA

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,499

Applicant(s)

BAARMAN, DAVID W.

Examiner

Y. J. Han

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22,33-45 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22,33-35,39-45 and 49-56 is/are rejected.
- 7) ☒ Claim(s) 36-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 49 is objected to because of the following informalities:

Claim 49 depends from the cancelled claim 48; for the examining purpose, it's been treated as depending from claim 45. Claim 49 also has double periods.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 33, 34, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (5,796,334).

Chen et al discloses a contactless power supply for inductively coupled to a device (28) comprising a tank circuit (36) for inductively supplying power to the device and a controller (U1) for dynamically reconfiguring (adjusting the value of the variable capacitor C5) the tank circuit which has a resonant frequency; a sensor for sensing operating parameters of the tank circuit (combination of R8 and C4 senses the output power level).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-12, 39, 41-44, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5,796,334) in view of Venkitasubrahmanian et al (5,808,422).

Chen et al discloses the invention substantially as claimed but does not disclose a tank circuit coupled to an inverter. The '422 reference, however, teaches that the use of such feature is well known in the art. See Figure 3, inverter E having a duty cycle and an inverter frequency coupled to resonant tank output F. With respect to a rail voltage, this is nothing more than a line voltage of power source. Therefore, it would have been obvious to one having ordinary skill in the art to employ an inverter to a tank circuit of Chen et al, as taught by the '422 reference, to obtain the claimed invention for the purpose of efficiently adjusting the resonant frequency of the tank circuit.

6. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5,796,216) as modified by Venkitasubrahmanian et al (5,808,422), and in further view of Wert (5,272,615)..

Chen et al, as modified by Venkitasubrahmanian et al, discloses the invention substantially as claimed but does not disclose a memory for storing operating parameters. Wert, however, teaches that the use of a memory to store operating parameters is well known in the art. The latch 106 is a switching and memory device which receives the comparison signal from the magnitude comparator 138 to control the buffer driver 134. In effect, the latch 128 serves as a digital control valve in the following way. The 204.8 KHz clock timing signal received at the latch 106 from the clock generator 104 forces the logic in the latch 106 to be interrogated at the

clock rate. The latch 106 is a memory device that stores the signal from the magnitude comparator 138 for the duration of the clock timing signal e.g., for approximately ten microseconds, for controlling the synthesized a.c. output signal. Therefore, it would have been obvious to one having ordinary skill in the art to employ a memory coupled to a tank circuit in a contactless power supply of Chen et al as modified by Venkitasubrahmanian et al, as taught by Wert, to obtain the claimed invention for the purpose of efficiently adjusting the resonant frequency of the tank circuit.

7. Claims 13-22, 35, 45, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5,796,334) as modified by Venkitasubrahmanian et al (5,808,422), and in further view of Kenney (3,590,382).

Chen et al discloses the invention substantially as claimed but does not disclose a tank circuit having a variable inductor. Kenny teaches that the use of a tank circuit having both variable capacitor and variable inductor is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art to employ a tank circuit having both variable capacitor and variable inductor of Chen et al as modified by Venkitasubrahmanian et al, as taught by Kenny, to obtain the claimed invention for the purpose of adjusting resonant frequency.

Allowable Subject Matter

8. Claims 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

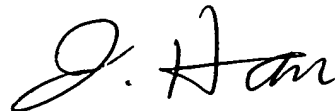
Response to Arguments

9. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J. Han', is positioned above the printed name and title.

J. Han
Primary Examiner
Art Unit 2838